

Chapter 6. List of Preparers

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Table 6.1. List of Preparers

Name	Project Role
Bureau of Land Management	
Thomas Bills	Project Manager/Inspector and Team Leader
Buck Damone	Technical Coordinator; Cultural Resources; Areas of Critical Environmental Concern
Christopher Carlton	State Office Planning Lead
Duane Spencer	Buffalo Field Manager
Stephanie Connelly	High Plains District Manager
Pamela Murdock	State Office Planner
Diane Adams	GIS Coordinator
Kerry Aggen	Geological Resources; Mineral Resources – Locatable, Salable, Other Leasable Minerals, Geothermal; Carbon Capture and Sequestration
Cindy Allen	Forests and Woodlands, Forest Products
Roy Allen	Social Conditions/ Economic Conditions/ Environmental Justice
Allison Barnes	Visual Resources; Travel and Transportation Management; Recreation; Lands with Wilderness Characteristics; Areas of Critical Environmental Concern; Back Country Byways; Wild and Scenic Rivers; Wilderness Study Areas
Brent Breithaupt	Paleontological Resources; Areas of Critical Environmental Concern
Kristi Bulock	Fire and Fuels Management – Planned Fire (Prescribed Fire)
Jude Carino	Lands with Wilderness Characteristics; Wild and Scenic Rivers; Wilderness Study Areas
Lesley Collins	Public Affairs
Ronald Cross	ePlanning
Al Elser	Mineral Resources – Oil and Gas, Coal
Jay Esperance	Fire and Fuels Management – Unplanned/Wildland Fire
Janelle Gonzales	Stabilization and Rehabilitation; Grassland and Shrubland Communities; Riparian and Wetland Resources, Invasive Species; Livestock Grazing
Kay Medders	Grassland and Shrubland Communities; Riparian and Wetland Resources, Livestock Grazing
Dale Hanson	Paleontological Resources; Areas of Critical Environmental Concern
Amber Haverlock	Lands and Realty, Rights-of-Way and ROW Corridor
Ken Henke	Health and Safety
Melissa Hovey	Air Quality
Melanie Hunter	Mineral Resources – Oil and Gas
Arnie Irwin	Soil
Mike Karbs	Mineral Resources – Coal
Theresa Johnson	Mineral Resources – Coal
Meleah Corey	Invasive Species and Pest Management
Travis Kern	Mineral Resources – Oil and Gas Surface Resources
Seth Lambert	Cave and Karst Resources
Brent Lignell	Air Resources
Jenny Morton	Fish and Wildlife; Special Status Species
Bill Ostheimer	Fish; Special Status Fish
Jerry Queen	Geologic Resources; Mineral Resources – Other Solid Leasables, Locatable, Salable
Christine Sadler	Lands and Realty; Renewable Energy; Rights-of-Way and Corridors
Lesly Smith	Travel and Transportation Management; Recreation; Areas of Critical Environmental Concern; Back Country Byways
Brent Sobotka	Water
Jennifer Spegon	Reclamation
Dean Stilwell	Mineral Resources – Oil and Gas
Charis Tuers	Air Quality

Name	Project Role
Jennifer Walker	Fire and Fuels Management – Unplanned Fire (Wildfire), Planned Fire (Prescribed), Emergency Stabilization and Rehabilitation
Matthew Warren	Mineral Resources – Oil and Gas
Chris Williams	Water
Mike Worden	Mineral Resources – Oil and Gas
Victor Xuan	Mineral Resources – Oil and Gas
John Zachariassen	Air Quality
Ryan McCammon	Air Quality
Consultant	
ICF International	Interdisciplinary Team
Madeline Terry	Project Manager
Randall Coleman	Deputy Project Manager
Jay Haney	Air Quality
Rob Fetter	Social Conditions/Economic Conditions/Environmental Justice
Alex Uriarte	Social Conditions/Economic Conditions/Environmental Justice
Joe Walsh	GIS
Science Applications International Corporation (SAIC)	Interdisciplinary Team

Glossary

Access:

The opportunity to approach, enter, or cross public lands.

Accessible:

A term used to describe a site, building, facility, or trail that complies with the Architectural Barriers Act Accessibility Standards and can be approached, entered, and used by people with disabilities.

Active Mining Claim:

See Mining Claim.

Active Nest:

A nest that could reasonably be expected to be occupied in the future; the period of time that a nest can be unoccupied but still classified as active varies and is dependent on the characteristics of the species most likely to use the nest in the future.

ADA Compliant:

The subject (facility, website, trail, etc.) meets the standards of the Americans with Disabilities Act of 1990 (ADA). For example; new facility construction or alterations that meet the ADA standards published in the Title II (28 Code of Federal Regulations [CFR] part 35) and Title III regulations (28 CFR Part 36) issued by the Department of Justice (Revised September 15, 2010).

Administrative Access:

A term used to describe access for resource management and administrative purposes such as fire suppression, law enforcement and military in the performance of their official duty, or other access needed to manage Bureau of Land Management (BLM)-administered lands.

Allotment:

An area of land where one or more livestock operators graze their livestock. Allotments are BLM lands, but may also include other federally managed, state-owned, and private lands. An allotment may include one or more separate pastures. Livestock numbers and periods of use are specified for each allotment.

Allotment Categorization:

All allotments in the Buffalo Field Office have been categorized as Improve (I), Maintain (M), or Custodial (C), based on resource values and opportunities for improvement. Allotment category refers to BLM's level of management for a given grazing allotment and is used to establish priorities for distributing available funds and personnel during plan implementation to achieve cost-effective improvement of rangeland resources. Categorization is also used to organize allotments into similar groups for purposes of developing multiple use prescriptions, analyzing site-specific and cumulative impacts, and determining trade-offs. Allotments in Category I are managed more intensively and are monitored more frequently. Allotments in Category M are usually at a desired condition and are managed to maintain or improve that condition. Allotments in Category C are usually isolated parcels with few resource concerns that are fenced in with larger parcels of deeded land, are managed in conjunction with the permittee/lessee's normal livestock operation, and are monitored less frequently. Additional information on the categories follows:

- **I (Improve):** The category for allotments where (1) present range condition is unsatisfactory and where range condition is expected to decline further; (2) present grazing management is not adequate; (3) the allotment has potential for medium to high vegetative production but production is low to moderate; (4) resource conflicts/controversy with livestock grazing are evident; (5) there is potential for positive economic return on public investment.
- **M (Maintain):** The category for allotments where (1) the present range condition and management are satisfactory with good to excellent condition and will be maintained under present management, or fair condition and improving with improvement expected to continue under present management or opportunities for BLM management are limited because percentage of public land is low or acreage of public lands is small; (2) the allotment has a potential for moderate or high vegetative production is producing at or near this potential; (3) there are no significant land-use resource conflicts with livestock grazing; (4) land ownership status may or may not limit management opportunities; (5) opportunities for positive economic return from public investment may exist.
- **C (Custodial):** The category for allotments where (1) present range condition is not in a downward trend; (2) the allotment has a low vegetative production potential and is producing near this level; (3) there may or may not be limited conflicts between livestock grazing and other resources; (4) present management is satisfactory or is the only logical management under existing conditions; and (5) opportunities for a positive economic return on public investments do not exist.

Allotment Management Plan:

A written program of livestock grazing management, including supportive measures if required, designed to attain specific management goals in a grazing allotment.

Analysis Area:

Any lands, regardless of jurisdiction, for which the BLM synthesizes, analyzes, and interprets data for information that relates to planning for BLM-administered lands.

Animal Unit Month (AUM):

A standardized measurement of the amount of forage necessary for the sustenance of one cow unit or its equivalent for one month (approximately 800 pounds of forage).

Annual Brome:

A term which commonly refers to non-native annual brome grasses invading western rangelands. Annual brome species include, among others, cheatgrass (*Bromus tectorum*) and Japanese brome (*B. japonicas*).

Archeological Monitor:

A professional archeologist contracted to observe firsthand surface-disturbing activity occurring in areas of known or predicted cultural sensitivity and to make recommendations to protect cultural resources that may be impacted. A Monitor must meet the Secretary of the Interior's Professional Qualifications Standards (36 CFR Part 61) for an archeologist.

Archeological site:

A place which holds evidence of past human activity.

Archeology:

A method of the discovery, study and reconstruction of past human cultures from material remains such as artifacts and sites.

Area of Critical Environmental Concern (ACEC):

An area within the public lands designated for special management attention to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards. According to 43 CFR 1601.0-5a, "The identification of...[an] ACEC shall not, of itself, change or prevent change of the management or use of public lands."

Artifact:

Any object made, modified or used by humans, usually but not necessarily portable.

Avoid:

A term used to address mitigation of some activity (i.e., resource use). Paraphrasing the Council on Environmental Quality (CEQ) Regulations (40 CFR 1508.20), avoidance means to circumvent, or bypass, an impact altogether by not taking a certain action, or parts of an action. Therefore, the term "avoid" does not necessarily prohibit a proposed activity, but it may require the relocation of an action, or the total redesign of an action to eliminate any potential impacts resulting from it.

Avoidance Areas:

Areas with sensitive resource values where rights-of-way (ROWs) and Section 302 permits, leases, and easements would be strongly discouraged. Authorizations made in avoidance areas would have to be compatible with the purpose for which the area was designated and not be otherwise feasible on lands outside the avoidance area.

Back Country Byway:

- **Back Country Byway Type I:** Byways that are either paved or have an all-weather surface. Normal passenger cars can easily negotiate the roads. They are usually narrow, slow-speed, secondary roads. None of the byways follow the main highways.
- **Back Country Byway Type II:** Roads that require high-clearance trucks or four-wheel-drive vehicles, although passenger cars may be able to negotiate them under good conditions. These roads are not paved but often have an improved gravel surface. They often cross dry, rocky arroyos, have rough rutted sections, and have occasional steep grades and sharp curves.
- **Back Country Byway Type III:** Byways requiring four-wheel-drive vehicles and others such as dirt bikes and all-terrain vehicles (ATVs). These roads are often unimproved dirt tracks. Expect steep grades, rocky and muddy sections, and possible route-finding. Do not attempt these byways in a two-wheel-drive vehicle, the consequences could be serious for operator/passenger and car.
- **Back Country Byway Type IV:** Trails that are managed for snowmobile, dirt bike, mountain bike, or ATV use.

Badland :

Badland is moderately steep to very steep barren land dissected by many intermittent drainage channels. Ordinarily, the areas are not stony. Badland is most common in semiarid and arid regions where streams cut into soft geologic material. Local relief generally ranges between 10 and 200 meters. Potential runoff is very high, and erosion is active. *Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.*

Baseline:

The pre-existing condition of a defined area and/or resource that can be quantified by an appropriate metric(s). During environmental reviews, the baseline is considered the affected environment that exists at the time of the review's initiation, and is used to compare predictions of the effects of the proposed action or a reasonable range of alternatives.

Basin:

hydrologic basin: An extent of land where water from rain or snow melt drains downhill into a body of water, such as a river, lake, reservoir, estuary, wetland, sea or ocean. The basin includes both the streams and rivers that convey the water as well as the land surfaces from which water drains into those channels, and is separated from adjacent basins by a drainage divide.

geologic basin: A geographic depression in the earth's surface in which sediments accumulate over time.

Big Game Crucial Winter Range:

Winter habitat on which a wildlife species depends for survival. Because of severe weather conditions or other limiting factors, no alternative habitat would be available.

Biological Buffer Zone:

A combination of distance and screening (visual and/or audio) that reduces adverse impacts to a biological resource to an acceptable level.

BLM-administered land:

Land or interest in land owned by the United States and administered by the Secretary of the Interior through the BLM, except lands located on the Outer Continental Shelf, and land held for the benefit of Indians, Aleuts, and Eskimos. Synonym for public lands administered by BLM; includes surface and/or mineral estate.

BLM jurisdiction:

Synonym for public lands, includes surface and/or mineral estate.

BLM-managed land:

Synonym for public lands, includes surface and/or mineral estate.

BLM surface land:

Those public lands where the surface estate is owned by the United States and administered by the Secretary of the Interior through the BLM.

Borrow Material:

A term typically used in conjunction with construction. The term refers to excavated material transported for use as fill at another location.

Camping:

Erecting a tent or shelter or arranging bedding, or both, or parking a vehicle for the purpose of remaining overnight on land.

Carbon Dioxide (CO₂):

A colorless, odorless, nontoxic gas that is a normal component of earth's atmosphere. One of a number of "greenhouse gases."

Carbon Dioxide (CO₂) Flood:

A CO₂ flood is an enhanced oil recovery technique that injects fluid into the reservoir. When CO₂ is injected, it mixes with the oil and the two compounds dissolve into one another. The injected CO₂ acts as a solvent to overcome forces that trap oil in tiny rock pores and helps sweep the immobile oil left behind after the effectiveness of water injection decreases, resulting in increased oil production.

Carbon Dioxide (CO₂) Sequestration, also called Carbon Capture and Storage (CCS):

A number of technologies used or proposed for capturing CO₂ and sequestering (isolating) it, to keep it from entering the atmosphere. These technologies include scrubbing (removing) the CO₂ gas from the stream of exhaust gases emitted from various industrial operations (including coal burning at electrical generation plants), as well as liquefying the CO₂ gas and injecting it into underground reservoirs.

Casual Use:

Activities ordinarily resulting in no or negligible disturbance of the public lands, resources, or improvements (43 CFR 2801.5, 2881.5, 3150.0-5, 3200.1, 3400.0-5, 3482.1, and 3809.5).

Cave:

Any naturally occurring void, cavity, recess, or system of interconnected passages beneath the surface of the earth or within a cliff or ledge, including any cave resource therein, and which is large enough to permit a person to enter, whether the entrance is excavated or naturally formed. Such term shall include any natural pit, sinkhole, or other feature that is an extension of a cave entrance or which is an integral part of the cave.

Cave Significance Criteria:

Under the Federal Cave Resources Protection Act, a cave is considered significant if it meets one or more of the following criteria (per 43 CFR 37.11(c)).

- **Biota:** The cave provides seasonal or yearlong habitat for organisms or animals, or contains species or subspecies of flora or fauna that are native to caves, or are sensitive to disturbance, or are found on state or federal sensitive, Threatened, or Endangered species lists.
- **Cultural:** The cave contains historic properties or archeological resources or other features that are included in or eligible for inclusion in the National Register of Historic Places because of their research importance for history or prehistory, historical associations, or other historical or traditional significance.
- **Geologic/Mineralogic/Paleontologic:** The cave possesses one or more of the following features: (i) Geologic or mineralogic features that are fragile, or that exhibit interesting formation processes, or that are otherwise useful for study. (ii) Deposits of sediments or features useful for evaluating past events. (iii) Paleontologic resources with potential to contribute useful educational and scientific information.
- **Hydrologic:** The cave is a part of a hydrologic system or contains water that is important to humans, biota, or development of cave resources.
- **Recreational:** The cave provides or could provide recreational opportunities or scenic values.
- **Educational or Scientific:** The cave offers opportunities for educational or scientific use; or, the cave is virtually in a pristine state, lacking evidence of contemporary human disturbance or impact; or, the length, volume, total depth, pit depth, height, or similar measurements are notable (43 CFR 37.11(c)).

Cheatgrass:

Cheatgrass is an annual grass that forms tufts up to 2 feet tall. The leaves and sheaths are covered in short, soft hairs. The flowers occur as drooping, open, terminal clusters that can have a greenish, red, or purple hue. Flowering occurs in the early summer. These annual plants will germinate in fall or spring (fall is more common), and senescence usually occurs in summer. Cheatgrass invades rangelands, pastures, prairies, and other open areas. Cheatgrass has the potential to completely alter the ecosystems it invades. It can completely replace native vegetation and change fire regimes and is most problematic in areas of the western United States with lower precipitation levels.

Class II Wells:

Injection wells

1. That are brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production, and may be commingled with wastewaters from gas plants, which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection.
2. For enhanced recovery of oil or natural gas.
3. For storage of hydrocarbons that are liquid at standard temperature and pressure.

Class I Wells:

Injection wells that are

1. Wells used by generators of hazardous waste or owners or operators of hazardous waste management facilities to inject hazardous waste beneath the lowermost formation containing, within 0.25 mile of the wellbore, an underground source of drinking water.
2. Other industrial and municipal disposal wells that inject fluid beneath the lowermost formation containing, within 0.25 mile of the wellbore, an underground source of drinking water.
3. Radioactive waste disposal wells that inject fluid below the lowermost formation containing an underground source of drinking water within 0.25 mile of the wellbore.

Climate Change:

A change of climate, which may be attributed to a variety of factors, including, directly or indirectly, human activity that may alter the composition of the global atmosphere and natural climate variability observed over comparable time periods.

Climax Forest:

A relatively stable forest community that represents the final stage of ecological succession for its locality; the natural potential of a forest community. The climax community perpetuates itself indefinitely unless disturbed by outside forces.

Clinker:

A reddish, brownish, to black rock common in certain areas of the Powder River Basin, often near or above coal outcrops. Formed when the heat produced from a coal seam fire baked and/or melted the rocks, sediments, and/or soils on top of the coal seam. Ranges from friable (easily broken) to very durable and hard to break. Can have a bubbly-looking appearance, which gave rise to its local name of “scoria” (a bubbly-looking volcanic rock).

Closed:

Generally denotes that an area is not available for a particular use or uses; refers to specific definitions found in law, regulations, or policy guidance for application to individual programs.

Commercial use:

Commercial use is defined as recreational use of public lands and related waters for business or financial gain. Financial gain includes gratuities, donations, gifts, bartering, etc.

Commodity:

An economic good, such as a product of agriculture or mining.

Communication Site Management Plan:

A plan that provides for effective administration of a communications site. The site plan defines the principles and technical standards adopted in the site designation. The site plan provides direction for the day-to-day operations of the site in connection with the lease. The site plan shall delineate the types of uses that are appropriate at this site and the technical and administrative requirements for management of the site. The site plan should reflect the complexity of the current situation and the anticipated demand for the site.

Community Wildfire Protection Plan (CWPP):

A plan for at risk communities that identifies and prioritizes areas for hazardous fuel reduction treatments, recommends the types and methods of treatment on federal and non-federal land that will protect one or more at-risk communities and essential infrastructure, and recommends measures to reduce structural ignitability throughout the at-risk community. A CWPP is a collaborative product involving interested parties, local government, local firefighting agencies, the state agency which oversees forest management, and federal land management agencies.

Comprehensive Weed Management Plan:

A plan for controlling invasive plant species that incorporates integrated weed management techniques and accounts for pertinent considerations, such as management actions and allocations affecting weeds.

Consumptive Use:

The use of a resource that reduces the supply. For example, removing water from a source like a river, lake or aquifer without returning an equal amount of water, reduces the supply.

Contrast:

Opposition or unlikeness of different forms, lines, colors, or texture in a landscape.

Controlled Surface Use (CSU):

Surface occupancy or use will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. Identified resource values require special operational constraints that may modify the lease rights. CSU is used for operating guidance, not as a substitute for the no surface occupancy or timing limitation stipulations.

Cultivate:

To raise crops; to water, loosen the soil, and weed around growing plants.

Cultivation:

The process of preparing the land and caring for growing crops.

Cultural Resource Inventory Levels:

A three-tiered process for discovering, recording, and evaluating cultural resources.

- **Class I** - A review of existing literature and oral informant data combined with an analysis of a specific geographic region (e.g., an area of potential effect, drainage basin, resource area, etc.).
- **Class II** - A sampling survey usually aimed at developing and testing a predictive model of cultural resource distribution.
- **Class III** - An on-the-ground survey to discover, record, and evaluate cultural resources within a specific geographic area (e.g., usually an area of potential effect for a proposed undertaking).

Culture:

The customs, beliefs, and ways of life of a group of people.

Day-use:

Visitor use during the period of one-half hour before sunrise until one-half hour after sunset. Alternatively, a day use site may post hours for a defined time (i.e., 6 a.m. until 10 p.m.).

dB (decibel):

A unit of measurement of the loudness or strength of a signal. One decibel is considered the smallest difference in sound level that the human ear can discern. Decibels are a relative measurement derived from two signal levels: a reference input level and an observed output level. A decibel is the logarithm of the ratio of the two levels. One Bel is when the output signal is 10 times that of the input and one decibel is 1/10th of a Bel.

Defer:

Postpone for the life of the plan.

Defer (Minerals):

To set-aside, or postpone, a particular resource use(s) or activity(ies) on the public lands to a later time. Generally when this term is used the period of the deferral is specified. Deferments sometimes follow the sequence timeframe of associated serial actions (e.g., action B will be deferred until action A is completed, etc.).

Deferment (Livestock Grazing):

Delay of livestock grazing on an area for an adequate period of time to provide for plant reproduction, establishment of new plants, or restoration of vigor of existing plants.

Designated Roads and Trails:

Specific roads and trails on which some type of motorized vehicle use is allowed either seasonally or year-long. Use can be defined as open to the general public or for administrative use only.

Desired Future Condition (DFC):

Landscape conditions and management scenarios that should exist for a specific land area and for a specific resource (e.g., livestock grazing or wildlife) that meet the managing agency's vision statement and objectives for ecological, economic and social considerations.

Desired Future Condition (DFC) for Riparian and Wetlands (after 20-40 years of management):

- Manage for proper functioning conditions (PFCs) on all riparian and wetland habitats.
- Riparian and wetland vegetation supports PFC of biologic, hydrologic, and physical components of streams and wetlands.

- Systems are vertically stable (no downcutting).
- Floodplain connectivity.
- Herbaceous plant communities are composed of functional and structural plant groups that are dominated by deep-rooted native species that support stream bank and shoreline stability, floodplain development, water quality, and nutrient cycling. Also includes woody species and cottonwoods within the site's potential.
- Management of invasive, noxious, and undesirable species.
- Provide 'Yellow, Red and Blue Ribbon' streams on those systems with fish habitat potential.

Desired Plant Community (DPC):

Of the several plant communities that may occupy a site, the DPC is the community that has been identified through a management plan to best meet the plan's objectives for the site. At a minimum, it must protect the site.

Developed Recreation Site:

Any designated site or location built or improved for recreation and visitor services on BLM-administered land such as a trailhead, scenic vista, interpretive site, parking area, boat launch, picnic area, potable water source, restroom or campground.

Diet:

What people and living organisms eat is their diet. A diet is a combination of foods and liquids that provide the necessary nutrients for the body.

Dispersed Recreation:

Recreation that occurs on BLM-administered lands outside of a developed recreation site or designated trail.

Disposal:

Federally owned **Salable Minerals (mineral materials)** are disposed of through federally-approved actions, including sales and free use. Sales generate a set royalty to the federal government, by the ton or cubic yard, while royalty-free use is granted to municipal governments for uses in public works projects and to qualified non-profit organizations.

Disruptive Activity:

Those Public Land resource uses/activities that are likely to alter the behavior, displace, or cause excessive stress to existing animal or human populations occurring at a specific location and/or time. In this context, disruptive activity(ies) refers to those actions that alter behavior or cause the displacement of individuals such that reproductive success is adversely affected, or an individual's physiological ability to cope with environmental stress is compromised. This term does not apply to the physical disturbance of the land surface, vegetation, or features. Examples of disruptive activities may include noise, human foot or vehicle traffic, domestic livestock roundups, or other human presence regardless of the activity. When administered as a land use restriction (e.g., No Disruptive Activities), this term may prohibit or limit the physical presence of sound above ambient levels, light beyond background levels, and/or the nearness of people and their activities. The term is commonly used in conjunction with protecting wildlife during crucial life stages (e.g., breeding, nesting, birthing, etc.), although it could apply to any resource value on the Public Lands. The use of this land use restriction is not intended to prohibit all activity or authorized uses. (IB WY-2007-029)

Disturbance Free Buffer Zone:

An area from which surface-disturbing and disruptive activities are prohibited for the protection of a resource. This is synonymous with ‘minimal human activity levels’ as described in the Greater Yellowstone Bald Eagle Management Plan (Greater Yellowstone Bald Eagle Working Group 1996). Essentially no disruptive activity with the following exceptions: (1) existing patterns of land use activities, (2) monitoring or research activities by experienced personnel, and (3) traffic that maintains a constant velocity (no stopping) and at an acceptable frequency.

Domestication:

The process of taming or making usable for humans.

Ecological Site:

A kind of land with a specific potential natural community and specific physical site characteristics, differing from other kinds of land in that the site has the ability to produce distinctive kinds and amounts of vegetation and to respond to management. Ecological sites are defined and described with information about soil, species composition, and annual production.

Endangered Species:

Any species that is in danger of extinction throughout all or a significant portion of its range.

Enhancement:

A management action designed to improve visual quality.

Environment:

The conditions around an area that affect it. These include geography, soil, climate, plants, and animals.

Ephemeral Stream:

A stream that flows only in direct response to precipitation, and whose channel is at all times above the water table. Confusion over the distinction between intermittent and ephemeral streams may be minimized by applying Meinzer’s suggestion that the term “ephemeral” be arbitrarily restricted to streams that do not flow continuously for at least 30 days (Prichard et al. 1998). Ephemeral streams support riparian areas when streamside vegetation reflects the presence of permanent subsurface water.

Epidemic:

An outbreak of a pest or disease in a high proportion of the individuals of a population in a geographic area. For example, outbreaks of bark beetles causing mortality in a large portion of pine trees in a forest.

Erosion:

The general term used for any of a group of processes whereby earth materials (rocks, soil, and sediments) are worn away, removed, and/or moved to another site. Erosion includes mechanical processes (such as physical wearing away by water and wind, and movement due to gravity), chemical processes (such as dissolution by water and the constituents in water), biological processes (such as breaking down by plants into soil, and consumption of rocks by lichen).

Evidence:

Data which are used to prove a point, or which clearly indicate a situation.

Excavation (cultural resources):

Carefully removing layers of dirt or sediment to find objects or features made by people from long ago.

Exceedance:

An event in which measurements of ambient air quality are above the national ambient air quality standard (NAAQS) or the Wyoming Department of Environmental Quality (DEQ) standard set for a particular pollutant. For example, an annual average nitrogen dioxide value of 110 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) is an exceedance of both the NAAQS and Wyoming DEQ annual average standard for nitrogen dioxide of 100 $\mu\text{g}/\text{m}^3$.

Exclusion Areas:

Areas with sensitive resource values where ROWs and 302 permits, leases, and easements would not be authorized.

Extensive Recreation Management Areas (ERMA):

See *Recreation Management Areas*.

Extinct:

No longer existing or active; died out.

Extinction:

Bring to an end, wiping out, or destruction.

Federal Mineral Estate:

Lands where all or some minerals (such as coal or oil and gas) underlying the surface are owned by the federal government.

Federal Undertaking:

A project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including:

- a. those carried out by or on behalf of the agency;
- b. those carried out with federal financial assistance;
- c. those requiring a federal permit license, or approval; and
- d. those subject to State or local regulation administered pursuant to a delegation or approval by a federal agency (16 United States Code [U.S.C.] 470w).

Fire-adapted:

Fire adapted are those organisms or plant communities where fire is essential and the species have evolved adaptations to respond positively to fire and to facilitate fire's spread, i.e. the vegetation is fire-prone and flammable.

Firearm:

A loaded or unloaded pistol, rifle, shotgun or other barreled weapon that is designed to, or may be readily converted to, expel a projectile by the action of an explosive.

Fire Management Plan:

A strategic plan that identifies appropriate strategies to achieve resource objectives based on an approved Resource Management Plan. Identifies fire policy, objectives, and prescribed actions; may include maps, charts, tables, and statistical data.

Fire Regime Condition Class:

A classification of the amount of departure from the natural fire regime. The departure results in changes to one or more of the following ecological components: vegetation characteristics (e.g., species composition, structural stages, stand age, canopy closure, and mosaic pattern), fuel composition, fire frequency, severity, and pattern, and other associated disturbance (e.g., insect and disease mortality, grazing, and drought). The three condition classes are listed below:

Condition Class 1

- The historic disturbance regime is largely intact and functioning (e.g., has not missed a fire return interval)
- Potential intensity and severity of fire within historic range
- Effects of disease and insects within historic range
- Hydrologic functions within normal historic range
- Vegetation composition and structure resilient to disturbances
- Non-native species currently not present or to a limited extent
- Low risk of loss for key ecosystem components

Condition Class 2

- Moderate alterations to historic disturbance regime evident (e.g., missed one or more fire return intervals)
- Effects of disease and insects pose an increased risk of loss of key community components
- Riparian areas and associated hydrologic function show measurable signs of adverse departure from historic conditions
- Vegetation composition and structure shifted toward conditions less resilient to disturbances
- Populations of non-native species may have increased, increasing the risk of further increases following disturbance

Condition Class 3

- Historic disturbance regime significantly altered; historic disturbance processes and impacts may be precluded (e.g., missed several fire return intervals)
- Effects of disturbance (fire, insects, and disease) may cause significantly or complete loss of key community components
- Hydrologic functions may be adversely altered; high potential for increased sedimentation and reduced streamflows
- Invasive species may be common and in some cases the dominant species on the landscape; disturbance will likely increase both the dominance and geographic extent of these invasive species
- Highly altered vegetation composition and structure predisposes community to disturbance events outside the range of historic availability; disturbance may have effects not observed or measured before

Fire Return Interval:

The number of years between two successive fire events at a specific site or area.

Flaring/Venting:

The controlled burning (flare) or release (vent) of natural gas that cannot be processed for sale or use because of technical or economic reasons.

Floodplain Connectivity:

Maintenance of lateral, longitudinal, and vertical pathways for biological and hydrological processes in the floodplain. Examples of failures to maintain connectivity could include culverts or levees that restrict flow in the floodplain and that focus overbank flow into the channel.

Flushing Livestock:

Flushing livestock is the holding of livestock in an invasive plant species seed-free area where they are fed an invasive species seed-free ration for 72 hours, thus flushing invasive species seed from the animals' digestive systems.

Foothill:

A low hill near the base of a mountain or range of mountains.

Foreground-Middle Ground Zone:

An area that can be seen from a travel route for a distance of 3 miles (foreground) to 5 miles (middle ground) where management activities might be viewed. A distance from 5 to 15 miles is called the Background Zone and the area beyond 15 miles is called the Seldom-Seen Zone.

Fossil:

The remains or traces of an organism preserved by natural processes in the earth's crust. This would include plants and animals, their tracks, burrows, and other imprints. Fossils are considered a nonrenewable resource. The definition does not include minerals derived from fossils such as coal or oil and gas.

Fresh Water:

Water containing total dissolved solids concentrations of less than 10,000 milligrams per liter.

Geologic Resources:

Resources associated with the earth, including its composition, structure, and physical properties. Geologic resources commonly include the structure of the earth, rocks and minerals; landforms; and the processes that produce them.

Geothermal Energy:

Heat energy that occurs naturally in the earth, and that can be extracted and used. Can be either moist (containing water as steam) or dry.

Glacier:

A large mass of ice that moves slowly down a slope or valley.

Goal:

A broad statement of a desired outcome. Goals are usually not quantifiable and may not have established timeframes for achievement.

Greenhouse Gas:

A gas that absorbs and retains heat radiation. These gases include CO₂, water vapor, and methane (CH₄).

Gullied land:

Gullied land consists of areas where erosion has cut a network of V-shaped or U-shaped channels. The areas resemble miniature badlands. Generally, gullies are so deep that extensive reshaping is necessary for most uses. Small areas can be shown by spot symbols. Phases indicating the kind of material remaining may be useful in some places. *Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.*

Guzzler:

A water development for wildlife.

Hazardous Fuel:

Excessive live or dead wildland fuel accumulations that increase the potential for uncharacteristically intense wildland fire and decrease the capability to protect life, property, and natural resources.

Hazardous Substance:

As defined by Comprehensive Environmental Response, Compensation, and Liability Act 42 U.S.C. 9601(14), the term “hazardous substance” means (A) any substance designated pursuant to section 311(b)(2)(A) of the Federal Water Pollution Control Act [33 U.S.C. 1321(b)(2)(A)], (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title, (C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act [42 U.S.C. 6921] (but not including any waste the regulation of which under the Solid Waste Disposal Act [42 U.S.C. 6901 et seq.] has been suspended by Act of Congress), (D) any toxic pollutant listed under section 307(a) of the Federal Water Pollution Control Act [33 U.S.C. 1317(a)], (E) any hazardous air pollutant listed under section 112 of the Clean Air Act [42 U.S.C. 7412], and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act [15 U.S.C. 2606]. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

Heavy Equipment :

As applicable for wildfire management actions which restrict “Heavy Equipment” this would include: Dozers, Skidders, & Graders. It would not include Fire Engines or Water Tenders.

Held by Production:

Leases that become productive and do not terminate until all wells on the lease have ceased production.

Highly Erosive Soil:

There are two primary erosion mechanisms, water and wind. Highly erosive soils have severe potential for erosion from one or both of these mechanisms.

Water Erosion – Water erosion is a function of soil erodibility and percent slope. Soil erodibility factor (Kw) quantifies soil detachment by runoff and raindrop impact. Factor Kw applies to the whole soil, which includes rock fragments. Kw is based primarily on percentage of silt, sand, and organic matter, soil structure, saturated hydraulic conductivity,

and rock fragments. Values of Kw range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water (NRCS 2010b).

Slope gradient is the difference in elevation between two points, expressed as a percentage of the difference between those points. Representative Value Slope indicates the expected slope value for a given SMU (NRCS 2010b).

Water Erosion Hazard = Kw factor x Representative Value Slope. A water erosion hazard greater than 7 is rated severe.

Wind Erosion – The soil wind erosion hazard is estimated by the using the soil Wind Erosion Index. The Wind Erosion Index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion (NRCS 2010b). A wind erosion index of (134, 160, 180, 220, 250, 310) is rated severe.

Historic:

Referring to the time after written records or after the Europeans first came and wrote about the people and events in America.

Historic American Buildings Survey/Historic American Engineering Record:

The Historic American Buildings Survey/Historic American Engineering Record is an integral component of the federal government's commitment to historic preservation. The program documents important architectural, engineering and industrial sites throughout the United States and its territories. A complete set of Historic American Buildings Survey/Historic American Engineering Record documentation, consisting of measured drawings, large-format photographs, and written history plays a key role in accomplishing the mission of creating an archive of American architecture and engineering and in better understanding what historic resources tell us about America's diverse ethnic and cultural heritage. To insure that such evidence is not lost to future generations, the Historic American Buildings Survey/Historic American Engineering Record Collections are archived at the Library of Congress, where they are made available to the public.

Historic property:

Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on, the National Register of Historic Places maintained by the Secretary of the Interior. They include artifacts, records, and material remains related to such a property or resource (16 U.S.C. 470w).

History:

The study of past events and times through use of written and recorded sources. In some cases, oral sources may also be available.

House Pit:

A small dwelling that had a shallow excavated floor and a roof of poles covered with branches or hides.

Hunter-gatherers:

People who depend on wild animals and plants for food to survive.

Hydrogen Sulfide (H₂S):

The chemical formula for H₂S. This colorless, toxic and flammable gas often results from the break down of sulfites within nonorganic matter in the absence of oxygen. H₂S can occur in natural gas, swamps, volcanic gases, and well water.

Impact Analysis for Planning (IMPLAN 2000) Model:

IMPLAN is a regional economic model that provides a mathematical accounting of the flow of money, goods, and services through a region's economy. The model provides estimates of how a specific economic activity translates into jobs and income for the region. It includes the "ripple effect" (also called the "multiplier effect") of changes in economic sectors that may not be directly impacted by management actions, but are linked to industries that are directly impacted. In IMPLAN, these ripple effects are termed indirect impacts (for changes in industries that sell inputs to the industries that are directly affected) and induced impacts (for changes in household spending as household income increases or decreases due to the changes in production).

Indicator:

An indicator is a component of a system whose characteristics (for example, presence, absence, quantity, and distribution) can be observed, measured, or monitored based on sound scientific principles. An indicator can be evaluated at a site- or species-specific level. Monitoring of an indicator must be able to show change within timeframes acceptable to management and be capable of showing how the health of the ecosystem is changing in response to specific management actions. Selection of the appropriate indicators to be observed, measured, or monitored in a particular allotment is a critical aspect of early communication among the interests involved on-the-ground. The most useful indicators are those for which a change or trend can be easily quantified and for which agreement as to the significance of the indicator is broad based.

Infestation:

The inhabitation of a host by large numbers of pests, such as bark beetles on pine trees.

***In Situ* Leaching or *In Situ* Recovery (ISR):**

A mining method whereby the valuable mineral(s) of a mineral deposit are removed without requiring physical extraction of the rock(s) containing the mineral(s). Also called "solution mining." Using *In Situ* Leaching or ISR methods eliminates much of the tailings and waste that would be created during traditional mining methods (underground or surface mining).

Integrated Pest Management (IPM):

A pest control strategy that uses a variety of complementary strategies including: mechanical devices, physical devices, genetic, biological, cultural management, and chemical management. These methods are done in three stages: prevention, observation, and intervention. It is an ecological approach with a main goal of significantly reducing or eliminating the use of pesticides while at the same time managing pest populations at an acceptable level.

Intermittent Stream:

A stream that flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow in mountainous areas. Confusion over

the distinction between intermittent and ephemeral streams may be minimized by applying Meinzer's suggestion that the term "intermittent" be arbitrarily restricted to streams that flow continuously for periods of at least 30 days (Prichard et al. 1998).

Invasive Species:

A non-native species whose introduction does or is likely to cause economic or environmental harm or harm to human health (Executive Order [EO] 13112).

Karst Region:

Karst topography is a landscape shaped by the dissolution of a layer or layers of soluble or semi-soluble bedrock, usually carbonate rock such as limestone or dolomite. Due to subterranean drainage, there may be very limited surface water, even to the absence of all rivers and lakes. Many karst regions display distinctive surface features, with sinkholes or dolines being the most common. However, distinctive karst surface features may be completely absent where the soluble rock is mantled, such as by glacial debris, or confined by a superimposed non-soluble rock strata. Some karst regions include thousands of caves, even though evidence of caves that are big enough for human exploration is not a required characteristic of karst.

Key Features:

Areas or types of resource features that should guide land use allocation decisions.

Landscape character:

The arrangement of a particular landscape as formed by the variety and intensity of the landscape features and the four basic elements of form, line, color, and texture. These factors give the area a distinctive quality which distinguishes it from its immediate surroundings.

Land Tenure:

To improve the manageability of BLM-administered lands and improve their usefulness to the public, the BLM has numerous authorities for "repositioning" lands into a more consolidated pattern, disposing of lands, and entering into cooperative management agreements. These land-pattern improvements are completed primarily through the use of land exchanges, but also through land sales, jurisdictional transfers to other agencies, and through the use of cooperative management agreements and leases. These ownership or jurisdictional changes are referred to as "Land Tenure Adjustments."

Leasable Minerals:

Those minerals or materials subject to lease by the federal government under the Mineral Leasing Act of 1920, the Mineral Leasing Act for Acquired Lands of 1947, and their amendments. They include, but are not limited to coal, phosphate, asphalt, sulphur, potassium, and sodium minerals, oil and gas, as well as geothermal resources; and are administered pursuant to 43 CFR Parts 3100, 3200, 3400, 3500 and 3900.

Lease:

Any contract, profit-share arrangement, joint venture, or other agreement issued or approved by the United States under a mineral leasing law that authorizes exploration for, extraction of, or removal of minerals. Federally owned leasable minerals, such as coal, oil and gas, are obtained through a lease, in which the federal government receives a set royalty for each mineral being extracted.

Lease By Application (LBA):

An application for a for a federal coal lease under a competitive, sealed-bid process (see regulations under 43 CFR 3425). Not part of regional coal leasing (described under 43 CFR 3420), the LBA process pertains to leasing individual coal tracts which will continue or extend the life of an existing mine. If an LBA meets regulatory requirements, BLM application-processing steps include: notification of the Governor of LBA receipt, ensuring the LBA conforms with the applicable Resource Management Plan, preparing site-specific environmental analysis, holding a public hearing, consulting with surface-management agencies, the Governor, Attorney General and Indian Tribes, and holding a lease sale or rejecting the application. If a sale is held, bidding is open to any qualified bidder and is not limited to the applicant. A coal lease is issued to the highest bidder, if the BLM determines that the high bid meets or exceeds the fair market value of the coal as determined by BLM's economic evaluation, and if the U.S. Department of Justice determines that no antitrust violations would result from assigning the lease to the high bidder.

Lease Notice:

A provision on a mineral lease that provides more detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders. A Lease Notice also addresses special items the lessee should consider when planning operations, but does not impose new or additional restrictions (Uniform Format for Oil and Gas Lease Stipulations, March 1989. Rocky Mountain Regional Coordinating Committee). An information [lease] notice has no legal consequences, except to give notice of existing requirements, and may be attached to a lease by the authorized officer at the time of lease issuance to convey certain operational, procedural or administrative requirements relative to lease management within the terms and conditions of the standard lease form. Information [lease] notices shall not be a basis for denial of lease operations (43 CFR 3101.1-3).

Lease Stipulation:

A provision that modifies standard lease rights and is attached to and made a part of the lease. (Uniform Format for Oil and Gas Lease Stipulations, March 1989. Rocky Mountain Regional Coordinating Committee). The authorized officer may require stipulations as conditions of lease issuance. Stipulations shall become part of the lease and shall supersede inconsistent provisions of the standard lease form. Any party submitting a bid shall be deemed to have agreed to stipulations applicable to the specific parcel (43 CFR 3101.1-3).

Lek:

A traditional courtship display area attended by male Greater Sage-Grouse in or adjacent to sagebrush dominated habitat. A lek is designated based on observations of two or more male Greater Sage-Grouse engaged in courtship displays. Before adding the suspected lek to the database, it must be confirmed by an additional observation made during the appropriate time of day, during the strutting season. Sign of strutting activity (tracks, droppings, feathers) can also be used to confirm a suspected lek. Sub-dominant males may display on itinerant (temporary) strutting areas during population peaks. Such areas usually fail to become established leks. Therefore, a site where small numbers of males (less than 5) are observed strutting should be confirmed active for two years before adding the site to the lek database.

Lentic:

Standing water riparian-wetland areas such as lakes, ponds, seeps, bogs, and meadows.

Limited Activity Zone:

An area from which surface-disturbing activities are prohibited, temporally or permanently, for the protection of a resource. Disruptive activities are permissible synonymous with ‘light human activity levels’ as described in the Greater Yellowstone Bald Eagle Management Plan (Greater Yellowstone Bald Eagle Working Group 1996). Day use and low impact activities are allowed at low densities and frequencies. Extended use activities such as oil and gas development, heavy construction, timber harvest, and concentrated use are excluded.

Limited Area:

Means an area restricted, at certain times, in certain areas, and/or to certain vehicle use. These restrictions may be of any type, but can generally be accommodated within the following type of categories: Number of vehicles, type of vehicles, time of season of vehicle use, permitted or licensed use only, use on existing roads and trails, use on designated roads and trails, and other restrictions.

Limited Reclamation Potential:

Areas possessing unique landscape characteristics (e.g., sensitive geologic formations, extremely limiting soil conditions, biological soil crusts, badlands, rock-outcrops, etc.) often make meeting reclamation requirements impractical and/or unrealistic due to physical, biological, and/or chemical challenges. When disturbed, these areas may require extraordinary and/or unconventional reclamation strategies to attain reclamation success.

Locatable Minerals:

Minerals subject to exploration and development via staking (locating) lode or placer mining claims as provided for by the Mining Law of 1872, as amended, and regulated pursuant to 43 CFR Part 3800 regulations. This includes deposits of metallic minerals containing gold, silver and uranium; nonmetallic minerals such as bentonite and gypsum; and uncommon variety minerals not subject to disposal under 43 CFR Part 3600 regulations. There is no royalty to the federal government associated with the extraction of locatable minerals from public lands.

Lotic:

Running water riparian-wetland areas such as rivers, streams and springs.

Major Right-of-Way:

Pipelines 16 inches or greater or surface-disturbing activities greater than 50 feet.

Medicinal/Ceremonial Plants:

Plants in Native American culture that serve an important function in spiritual or social ritual or that are believed to provide therapeutic benefit.

Methanogenesis:

The production of CH₄ under anaerobic conditions by biological processes that are carried out by single celled microorganisms (methanogens).

Mineral Entry:

Areas “open to mineral entry” are areas that are open to the operation of the mining laws; mining claims may be located, and locatable minerals may be explored and/or developed in these areas. Areas “closed to mineral entry” are those areas which are closed to the operation of the mining laws; this includes locating of mining claims, and exploration/development of locatable minerals in these areas.

Mineral Leasing Deferral:

The postponement of the offering of a parcel in a mineral lease sale. Reasons for postponement may involve concerns about the impacts of mineral development on other resources and/or involve parcels on federal lands with land use plans that are currently being revised or amended.

Mineral Materials:

See Salable Minerals.

Mineral Withdrawal:

A formal order that withholds federal lands and minerals from entry under the Mining Law of 1872, as amended, and closes the area to mineral location (i.e., staking of mining claims and sites) and exploration and development pursuant to the 43 CFR Subparts 3802 and 3809.

Mining Claims, and Location of Mining Claims:

A mining claim or site is a selected parcel of Federal land, valuable for a specific mineral deposit or deposits (or to be used to process or remove the minerals), for which you have asserted a right of possession under the General Mining Law (of 1872, as amended). A mining claim/site can be located in any parcel for which all minerals are reserved to the federal government, and which are not closed to mineral entry; this includes split estate lands. The claimant(s)'s right is restricted to the development and extraction of a mineral deposit. The rights granted by a mining claim protect against a challenge by the United States and other claimants only after the discovery of a valuable mineral deposit. A mining claim/site gives the claimant the royalty-free right to explore for and develop the locatable minerals occurring in the claim, given the claimant follows all applicable state and federal laws and regulations (including those under 43 CFR 3800). This also includes BLM's annual timely receipt of the claim's Maintenance Fee, Maintenance Fee Waiver (for "small" miners, those who hold 10 or fewer claims), or Affidavit of Work, and that the claim/site has been located correctly and accurately. Mining claims or sites may be located and held by U.S. citizens (born or naturalized), or corporations (these are held to the same standard); non-citizens are not permitted to own or have an interest in mining claims or sites. There is no limit to the number of claims/sites that may be held by a qualified claimant, as long as the requirements of the General Mining Law have been met. There are four types of mining claims/sites: two are mineral in nature — lode claims (for vein-type mineralizations, which generally tend to be higher in grade and more limited in size and extent), and placer claims (for mineralizations that tend to form in lower grades and larger in size and extent); one is strictly for milling (processing) of minerals — mill site claims; and one is strictly for constructing tunnels (to reach or remove minerals) — tunnel site claims. There are 5 types of mining claim/site status:

- **Active:** A mining claim/site for which BLM has timely received the Maintenance Fee, or Affidavit of Work, or received and approved the Maintenance Fee Waiver (for "small" miners, those who hold 10 or fewer claims).
- **Closed:** A mining claim/site that the claimant(s) no longer wish to hold, and has provided notification of abandonment or relinquishment to BLM.
- **Pending:** A mining claim/site for which BLM has received the location notification, but has not yet fully recorded all the claims' pertinent information; there may be a number of reasons for this status.

- **Void:** A mining claim/site for which BLM has not received the timely receipt of the annual Maintenance Fee; the claim essentially no longer exists.
- **Valid, or Validity:** A claimant(s) who holds a BLM-recorded mining claim/site is not required to prove the “discovery” of a valuable mineral(s) in that claim, or on land near the claim site (mill or tunnel). However, there may be a number of circumstances in which this assumption of “discovery” may be challenged; these include an impending withdrawal of public lands that includes the claim/site’s parcel. Federal statute does not describe what constitutes a “valuable mineral deposit, therefore the federal government adopted the “prudent man rule.” This rule was first stated by the Department of the Interior (DOI) in the adjudication of *Castle v. Womble* (19 L.D. 455) in 1894; this holding states “..where minerals have been found and the evidence is of such a character that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success in developing a valuable mine, the requirements of the statute have been met.” The U.S. Supreme Court approved this definition in *Chrisman v. Miller* (197 U.S. 313, 1905). The DOI’s Solicitor issued an opinion in 1933 that noted a need for a distinct showing that the mineral could be mined, removed, and marketed at a profit. The marketability test is supplemental to the prudent man rule and considers the economics and market entry of the minerals in the deposit. The claimant(s) is required to show a reasonable prospect of making a profit from the sale of minerals from a claim or group of contiguous claims. DOI decisions require a discovery on each claim based on an actual exposure of the mineral deposit within the claim(s) boundaries. If a federal agency administers the parcel(s) that the claim(s)/site(s) are located in, they administer an examination of the claim(s)/sites(s) economics, using these same parameters. If the claimant(s) can prove they can mine and market the minerals at a profit, the claim(s)/site(s) are said to be “valid.” If they cannot prove this, and the federal agency’s examination proves they cannot, the location of the claim(s)/site(s) is said to be “invalid,” and the determined to be void.

Miscellaneous Areas :

Miscellaneous areas have essentially no soil and support little or no vegetation. This can be a result of active erosion, washing by water, unfavorable soil conditions, or human activities. Some miscellaneous areas can be made productive but only after major reclamation efforts. Map units are designed to accommodate miscellaneous areas, and most map units named for miscellaneous areas have inclusions of soil. If the amount of soil exceeds the standards for inclusions defined in this chapter, the map unit is named as a complex or association of miscellaneous area and soil. *Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.*

Mitigation:

Includes:

- a. Avoiding the impact altogether by not taking a certain action or parts of an action.
- b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- e. Compensating for the impact by replacing or providing substitute resources or environments.

Mitigation Measures:

Methods or procedures designed to reduce or lessen the adverse impacts caused by management activities.

Motor Vehicle or Motorized Vehicle:

Any device that is moved or propelled by an internal combustion engine or electrically powered motor. It shall include, but not be limited to automobiles, trucks, motorcycles, ATVs, motor bikes, motor-scooters and off-road vehicles, whether or not they can be licensed to operate on public roads. The term does not include vessels or personal mobility assistive devices, such as wheelchairs.

Multiple Use Reservoir:

A human-created lake or pond with a combination of balanced uses, including, but not limited to, recreation, livestock watering, watershed health, and wildlife and fish.

Native American:

The first people living in North and South America. Many groups of people today are Native Americans and have ancestors who lived on these continents for thousands of years before Columbus came. They are also called American Indians, First Americans, Alaska Native and Native People.

Native American Monitor:

An official representative of a Native American tribe who monitors projects that may impact cultural resources significant to their tribe. The Monitor participates and obtains firsthand knowledge of archeological excavations and surface-disturbing activities in areas that are known to have cultural sensitivity or have the potential for cultural sensitivity. The Native American Monitor should be knowledgeable about his or her culture and its traditions, and be familiar with archeological practices, as well as federal and state laws and regulations regarding Native American cultural concerns.

Native Species Status (NSS):

NSS refers to the population status of species native to the area in which their habitats occur. The NSSs are divided into the following categories:

NSS1 Native Species Status 1

- Populations are greatly restricted or declining, extirpation appears possible; or ongoing significant loss of habitat.

NSS2 Native Species Status 2

- Populations are declining, extirpation appears possible; habitat is restricted or vulnerable, but no recent or ongoing significant loss; species may be sensitive to human disturbance
OR
- Populations are declining or restricted in numbers and/or distribution, extirpation is not imminent; ongoing significant loss of habitat.

NSS3 Native Species Status 3

- Populations are greatly restricted or declining, extirpation appears possible; habitat is not restricted or vulnerable, but has no loss; species is not sensitive to human disturbance
OR
- Populations are declining or restricted in numbers and/or distribution, extirpation is not imminent; habitat is restricted or vulnerable, but no recent

or ongoing significant loss species may be sensitive to human disturbance
OR

- Species is widely distributed; population status or trends are unknown, but are suspected to be stable; ongoing significant loss of habitat.

NSS4 Native Species Status 4

- Populations are greatly restricted or declining, extirpation appears possible; habitat is stable and not restricted
OR
- Populations are declining or restricted in numbers and/or distribution, extirpation is not imminent; habitat is not restricted, vulnerable, but has no loss; species is not sensitive to human disturbance
OR
- Species is widely distributed, population status or trends are unknown, but are suspected to be stable; habitat is restricted or vulnerable, but no recent or ongoing significant loss; species may be sensitive to human disturbance
OR
- Populations that are stable or increasing and not restricted in numbers and/or distribution; ongoing significant loss of habitat.

Natural Fire Regime:

The general classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning (Agee 1993; Brown 1995).

Necessary Tasks (Clause):

Work requiring the use of motor vehicles. Examples include using motor vehicles to repair range improvements, manage livestock, perform geophysical exploration activities and other types of leasable mineral exploration activity (other than casual use), and performing mining claim functions resulting in less than five acres of surface disturbance as described in 43 CFR 3809.

Net Conservation Gain:

The actual benefit of gain above baseline conditions.

Nonconsumptive Use:

The use of a resource that does not reduce the supply. For example, wildlife viewing does not reduce the supply of wildlife as opposed to big game hunting, which reduces the supply of big game.

No-net Gain:

The result of land tenure adjustments that result in no overall acreage gain in public land.

No Surface Occupancy:

A mineral lease stipulation where use or occupancy of the land surface for mineral exploration or development is prohibited to protect identified resource values.

Noxious Weed:

In Wyoming, a noxious weed is a legal designation of plants under the Wyoming Weed and Pest Control Act.

Objective:

A description of a desired condition for a resource. Objectives can be quantified and measured and, where possible, have established timeframes for achievement.

Occupied Lek:

A lek that has been active during at least one strutting season within the last 10 years.

Off-Highway Vehicle (OHV):

Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding (1) any nonamphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) vehicles in official use; and (5) any combat or combat support vehicle when used in times of national defense emergencies.

Off-Highway Vehicle (OHV) Management Designations:

Used by federal agencies in the management of OHVs on public lands. Refers to the land use planning decisions that permit, establish conditions, or prohibit OHV activities on specific areas of public lands. All public lands are required to have OHV designations (43 CFR 8342.1). The CFR requires all BLM-administered public lands to be designated as “open”, “limited”, or “closed” to off-road vehicles, and provides guidelines for designation. The definitions of open, limited, and closed are provided in 43 CFR 8340.0-5 (f), (g), and (h), respectively.

Closed: Motorized vehicle travel is prohibited in the area. Access by means other than motorized vehicle, such as mechanized or nonmotorized use, is permitted. Areas are designated closed if closure to all vehicular use is necessary to protect resources, promote visitor safety, or reduce use conflicts (see 43 CFR 8340.0-5).

Open: Motorized vehicle travel is permitted year-long anywhere within an area designated as “open” to OHV use. Open designations are used for intensive OHV use areas where there are no special restrictions or where there are no compelling resource protection needs, user conflicts, or public safety issues to warrant limiting cross-country travel (See 43 CFR 8340.0-5).

Limited:

- a. Motorized vehicle travel within specified areas and/or on designated routes, roads, vehicle ways, or trails is subject to restrictions. The “limited” designation is used where OHV use must be restricted to meet specific resource management objectives. Examples of limitations include number or type of vehicles; time or season of use; permitted or licensed use only; use limited to designated roads and trails; or other limitations if restrictions are necessary to meet resource management objectives, including certain competitive or intensive use areas that have special limitations (see 43 CFR 8340.0-5).
- b. Vehicle travel may be permitted only on roads and vehicle routes designated by the BLM. In areas where final designation has not been completed, vehicle travel is limited to existing roads and vehicle routes as described above. Designations would be posted as appropriate stating:
 1. Vehicle route is open to vehicular travel.
 2. Vehicle route is closed to vehicular travel.

- c. Vehicle travel may be limited by number or type of vehicle. Designations would be posted as appropriate stating:
 - 1. Vehicle route limited to four-wheel drive vehicles only.
 - 2. Vehicle route limited to motorbikes only.
 - 3. Area is closed to over-snow vehicles.
 - 4. Vehicle travel is limited to licensed or permitted use.
 - 5. Vehicle travel is limited to time or season of use.
 - 6. Where specialized restrictions are necessary to meet resource management objectives, other limitations also may be developed.

The BLM may place other limitations, as necessary, to protect other resources, particularly in areas with intensive OHV use. Where off-road vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence.

Old Growth Forest:

Ecosystem distinguished by old trees and related structural features. Old growth encompasses the later stages of stand development that typically differs from earlier stages in several ways, including tree size; accumulation of large, dead woody material; number of canopy layers; species composition; and ecosystem function.

Open:

Generally denotes that an area is available for a particular use or uses. Refer to specific program definitions found in law, regulations, or policy guidance for application to individual programs.

Organized Event:

A structured, ordered, consolidated, or scheduled event or occupation of public lands or related waters for recreation use that is not commercial or competitive, and that the BLM has determined needs a SRP based on planning decisions, resource concerns, potential user conflicts, and/or public health and safety. The threshold for requiring a permit is determined for relevant management areas (for example, 10 people in a sensitive riparian area may constitute an organized group, but a less sensitive upland area may be able to handle 200 people without the need for special management).

Outbreak:

The infestation of a relatively small and contained grouping of trees by bark beetles.

Overgrazing:

Continued heavy grazing that exceeds the recovery capacity of the forage plants and creates deterioration of the grazing lands (Valentine 1990).

Paleontological Locality:

A geographic point or area where a fossil or associated fossils are found in a related geological context. A paleontological locality is confined to a discrete stratigraphic layer, structural feature, or physiographic area.

Paleontology:

The study of ancient plants and animals now known only from fossil remains.

Perennial Stream:

A stream that flows continuously. Perennial streams generally are associated with a water table in the localities through which they flow (Prichard et al. 1998).

Permitted Use:

The forage allocation by, or under guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease and is expressed in AUMs.

Pest:

With the exception of vascular plants classified as invasive plant species, a pest can be any biological life form that poses a threat to human or ecological health and welfare. For the purposes of this planning effort, an “animal pest” is any vertebrate or invertebrate animal subject to control by Animal and Plant Health Inspection Service (APHIS). APHIS is currently BLM’s authorized agent for controlling “animal pests.” For this reason, “animal pests” will be considered a subset of Pest.

Petroglyph:

Pictures created on rock faces by removing a portion of the rock by pecking, abrading, incising, or scratching.

Pictograph:

Picture created on a rock face by applying pigment or charcoal.

Planning Area:

A geographic area for which land use and resource management plans are developed and maintained.

Potential Fossil Yield Classification:

Geologic units are classified according to the Potential Fossil Yield Classification system, usually at the formation or member level, based on the relative abundance of significant fossils and their sensitivity to adverse impacts. The classification uses a ranking of 1 through 5, with Class 5 assigned to units with a very high potential for fossils. The classifications are described below.

Class 1 – Very Low: Igneous or metamorphic geologic units, or other units not likely to contain recognizable fossil remains. Management concern is negligible for Class 1 units and mitigation requirements are rarely necessary.

Class 2 – Low: Sedimentary geologic units that are not likely to contain vertebrate fossils or significant nonvertebrate fossils. Management concern is low for Class 2 units and mitigation requirements are not likely.

Class 3 – Moderate or Unknown: Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential. Management concern may extend across the entire range of management. Ground-disturbing activities require sufficient assessment to determine whether significant resources occur in the area of the proposed action, and whether the action could affect the paleontological resources. Predisturbance surveys, monitoring, or avoidance procedures may be necessary.

Class 4 – High: Geologic units containing known occurrences of significant fossils, but these occurrences may vary in local abundance and predictability. Management concern is moderate to high, depending on the potential impacts of the proposed action and local geologic conditions. Predisturbance field surveys are often needed, and avoidance or onsite monitoring may often be necessary during project activities.

Class 5 – Very High: Highly fossiliferous geologic units that consistently and predictably produce significant fossils, and that are at risk of human-caused adverse impacts or natural degradation. Class 5 areas merit a high level of management focus. Mitigation of ground-disturbing activities, including Predisturbance surveys, onsite monitoring, or avoidance procedures, are nearly always necessary. These units are often the focus of illegal collecting activities. Special management designations may be appropriate for protection or interpretation.

Potential Natural Community:

The biotic community that would become established if all successional sequences were completed without interference by humans under the present environmental conditions. Natural disturbances are inherent in development.

Prairie Dog “Complex”:

Defined as a cluster of two or more prairie dog towns within 3 kilometers of each other (Clark and Stromberg 1987), and bounded by either natural or artificial barriers (Whicker and Detling 1988), which effectively isolate one cluster of colonies from interacting/interchanging with another. Prairie dogs may commonly move among colonies of a cluster, and thereby foster reproductive/genetic viability, but exhibit little emigration/immigration between clusters. A cluster may include some currently unoccupied, through physically suitable (i.e., vegetation, soils, topography, etc.), land immediately adjacent to occupied colonies that support other prairie dog-associated (ecosystem function), obligate or facultative species (e.g., swift fox, mountain plover, burrowing owl).

Prehistory/Prehistoric:

Information about past events prior to the recording of events in writing. The period of prehistory differs around the world depending upon when written records became common in a region.

Prescribed Burning:

Application of fire to wildland fuels in either their natural or modified state under specified environmental conditions that allow the fire to be confined to a predetermined area and at the same time to produce the fire intensity and rate of spread required to attain planned resource management objectives.

Prescribed Fire:

A wildland fire originating from a planned ignition to meet specific objectives identified in a written, approved, prescribed fire plan for which the National Environmental Policy Act requirements (where applicable) have been met prior to ignition.

Primitive and Unconfined Recreation:

Nonmotorized, nonmechanized (except as provided by law), and undeveloped types of recreational activities. Bicycles are considered to constitute mechanized transport.

Priority Fish Species:

Priority fish species are species considered to be sport fish and native species.

Produced Water:

Groundwater removed to facilitate the extraction of minerals, such as coal, oil, or gas.

Proper Functioning Condition:

See *Riparian/Wetland Functionality Classification*.

Proper Grazing:

Proper grazing is the practice of managing forage use by grazing animals at a sustainable level that maintains rangeland health. Proper grazing will maintain or increase plant cover, including residue, which acts to slow down or reduce runoff, increase water infiltration, and keep erosion and sedimentation at or above acceptable levels within the potential of ecological sites within a given geographic area (e.g., watershed, grazing allotment).

Public Land:

Any land and interest in land (surface and mineral) owned by the United States within the several states and administered by the Secretary of the Interior through the BLM, without regard to how the United States acquired ownership, except—

1. lands located on the Outer Continental Shelf; and
2. lands held for the benefit of Indians, Aleuts, and Eskimos.

Range Improvement Project:

A structural improvement requiring placement or construction to facilitate management or control distribution and movement of grazing or browsing animals. Such improvements may include, but are not limited to, fences, wells, troughs, reservoirs, water catchments, pipelines, and cattleguards. The project also may include a practice or treatment which improves rangeland condition and or resource production for multiple use. Nonstructural types of projects may include, but are not limited to, seeding and plant control through chemical, mechanical, and biological means or prescribed burning.

Rangeland:

Land on which the native vegetation is predominantly grasses, grass-like plants, forbs, or shrubs suitable for grazing or browsing. This includes lands revegetated naturally or artificially when routine management of that vegetation is accomplished mainly through manipulation of grazing. Rangelands include natural grasslands, savannas, shrublands, most deserts, tundra, alpine communities, coastal marshes, and wet meadows.

Rangeland Health:

The degree to which the integrity of the soil and ecological processes of rangeland ecosystems are sustained. This is generally synonymous with Land Health.

Raptor:

Bird of prey with sharp talons and a strongly curved beak, such as hawks, falcons, owls, vultures, and eagles.

Raptor Species of High Federal Interest or Conservation Concern:

Bird of prey species that the U.S. Fish and Wildlife Service (USFWS) and the BLM have identified as high interest species. Species selection is based on national importance or public

value, the potential for regional decline, regional jeopardy, or long-term impact, and status as an indicator species.

Reclamation:

Taking measures following disturbance of public lands caused by operations to meet applicable performance standards and achieve conditions required by the BLM at the conclusion of operations. Components of reclamation include, where applicable: (1) Isolation, control, or removal, of acid-forming, toxic, or deleterious substances; (2) Regrading and reshaping to conform with adjacent landforms, facilitate revegetation, control damage, and minimize erosion; (3) Rehabilitation of fisheries or wildlife habitat; (4) Placement of growth medium and establishment of self-sustaining revegetation; (5) Removal or stabilization of buildings, structures, or other support facilities; (6) Plugging of drill holes and closure of underground workings; and (7) Providing for post-mining monitoring, maintenance, or treatment. (43 CFR 3809.5)

Initial Reclamation: Occurs as soon as possible after the surface is disturbed.

Interim Reclamation: Occurs on all disturbed areas not needed for active support of to minimize the environmental impacts of development on other resources and uses.

Final Reclamation: Occurs at the end of the project and the character and productivity of the land and water are restored.

Reclamation Suitability:

The inherent ability of the soil to recover from impacts; often referred to as soil resilience.

Reclamation Suitability (Source of Reclamation Material):

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings do not apply to quarries or other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reclaimed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Recreation Management Areas:

Recreation management areas are units within a planning area guiding recreation management on public lands having similar recreation related issues and concerns. There are two types of recreation management areas: extensive and special.

Extensive Recreation Management Areas (ERMA): an administrative unit that requires specific management consideration in order to address recreation use, demand, or recreation and visitor services program investments. ERMAs are managed within the recreation program to support and sustain the principal recreation activities and the associated qualities and conditions of the ERMA, commensurate with the management of other resources and resource uses. Management actions within ERMAs focus on access to the public lands, conflict resolution, resource protection and visitor health and safety.

Special Recreation Management Areas (SRMA): an administrative unit where the existing or proposed recreation opportunities and recreation setting characteristics are recognized for their unique value, importance and/or distinctiveness, especially as compared to other areas used for recreation. SRMAs are areas where recreation is recognized as the predominant LUP focus, where specific recreation opportunities and recreation setting characteristics are managed and protected on a long-term basis.

Rehabilitation:

Altering or reclaiming a degraded habitat in order to improve ecological function.

Required Design Features (RDF):

RDFs are required for certain activities in Greater Sage-Grouse habitat. RDFs establish the minimum specifications for certain activities to help mitigate adverse impacts. However, the applicability and overall effectiveness of each RDF cannot be fully assessed until the project level when the project location and design are known. Because of site-specific circumstances, some RDFs may not apply to some projects (e.g., a resource is not present on a given site) and/or may require slight variations (e.g., a larger or smaller protective area). All variations in RDFs would require that at least one of the following be demonstrated in the NEPA analysis associated with the project/activity:

- A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity (e.g., due to site limitations or engineering considerations). Economic considerations, such as increased costs, do not necessarily require that an RDF be varied or rendered inapplicable;
- An alternative RDF is determined to provide equal or better protection for Greater Sage-Grouse or its habitat;
- A specific RDF will provide no additional protection to Greater Sage-Grouse or its habitat.

Reserve Common Allotment:

A unit of public land that will not have term grazing permits issued. Such an allotment would only be grazed on a temporary, nonrenewable basis to provide temporary grazing to rest other areas following wildfire, habitat treatments, or to allow for more rapid attainment of rangeland health. The allotment must be of sufficient size to be managed as a discrete unit. Reserve common allotments should be distributed throughout the planning area.

Rest (livestock grazing):

Leaving an area ungrazed, thereby foregoing grazing of one forage crop. Normally rest implies absence of grazing for a full growing season or during a critical portion of plant development; i.e., seed production.

Restricted Disposal:

Parcels identified for restricted disposal may be disposed of under the Recreation and Public Purposes Act, by exchange, may limit the disposal to a particular type of entity capable of preserving the resource values, or may include the use of covenants in the deed or land sale patent to ensure the resource values are protected.

Right-of-Way (ROW):

A ROW grant is an authorization to use a specific piece of public land for a specific project, such as roads, pipelines, transmission lines, and communication sites. The grant authorizes rights and privileges for a specific use of the land for a specific period of time.

Riparian:

A form of wetland transition between permanently saturated wetlands and upland areas. These areas exhibit vegetation or physical characteristics reflective of permanent surface or subsurface water influence. Lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels are typical riparian areas. Included are ephemeral streams that have vegetation dependent upon free water in the soil. All other ephemeral streams are excluded.

Riparian/Wetland Functionality Classification:

Functional-at-Risk: Riparian/wetland areas that are in functional condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation.

Proper Functioning Condition (PFC): A riparian or wetland area is considered to be in PFC when adequate vegetation, landform, or large woody debris is present to do the following:

- Dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality
- Filter sediment, capture bedload, and aid floodplain development
- Improve floodwater retention and groundwater recharge
- Develop root masses that stabilize stream banks against cutting action
- Develop diverse ponding and channel characteristics to provide the habitats and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses
- Support greater biodiversity

Nonfunctional: Riparian or wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows and thus are not reducing erosion, improving water quality, and so on, as listed above. The absence of certain physical attributes, such as a floodplain where one should be, are indicators of nonfunctioning conditions.

Unknown: Riparian or wetland areas that the BLM lacks sufficient information on to make any form of determination.

Rock outcrop:

As used in Geology: That part of an in-situ geological formation or structure that appears at the surface of the earth. In-situ rock (often called “bedrock”) that is exposed and visible at earth’s surface. Taken from various Geological Dictionaries.

As used in Soil Science: Exposures of bare bedrock other than lava flows and rock-lined pits. If needed, map units can be named according to the kind of rock: Rock outcrop, chalk; Rock outcrop, limestone; Rock outcrop, gypsum. Many rock outcrops are too small to be delineated as areas on soil maps but can be shown by spot symbols. Some areas are large, broken by only small areas of soil. Most rock outcrops are hard rock, but some are soft. *Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.*

Rock Shelter:

A shallow, cave-like opening at the base of a bluff or cliff.

ROW Avoidance Areas:

Areas where adverse routing factors exist. ROWs either will not be granted in these areas, or – if granted – will be subject to stringent terms and conditions. In other words, ROWs would be restricted (but not necessarily prohibited) in these avoidance areas.

Salable Minerals:

Also called Mineral Materials. Common variety minerals, such as sand, gravel, common decorative or building stone, pumice, pumicite, and common clay, that are not obtainable under the mining or leasing laws, but can be acquired under the Mineral Materials Act of 1947, as amended. These minerals are used mainly for construction purposes, like buildings, roads, etc. Salable minerals are disposed of by sales to the public for a set royalty by the ton or cubic yard, or through free-use permits (FUPs) to government agencies or qualified nonprofit organizations.

Saturated Soil:

A condition in which all voids between soil particles are temporarily or permanently filled with water.

Scenic Area:

An area whose landscape character exhibits a high degree of variety and harmony among the basic elements which results in a pleasant landscape to view.

Scenic Quality:

The relative worth of a landscape from a visual perception point of view. Scenic quality is rated as Class A (high), Class B (medium), or Class C (low).

Scoria:

See Clinker. Local term often used in the Powder River Basin area for “clinker.” Very different rock type from true scoria, which is volcanic in origin, although some clinker can appear very similar to true scoria which is how the term came to be used for clinker in the PRB area.

Seasonal Ranges:

The Wyoming Game and Fish Department has identified various ranges for big game species. These ranges are defined as follows:

Summer or Spring-Summer-Fall: A population or portion of a population of animals uses the documented habitats within this range annually from the end of previous winter to the onset of persistent winter conditions.

Severe Winter Relief: A documented survival range, which may or may not be considered a crucial range area as defined above. It is used to a great extent, but only in extremely severe winters. It may lack habitat characteristics that would make it attractive or capable of supporting major portions of the population during normal years, but is used by and allows at least a significant portion of the population to survive the occasional extremely severe winter.

Winter: A population or portion of a population of animals annually uses the documented suitable habitat sites within this range in substantial numbers during the winter period only.

Winter/Year-long: A population or a portion of a population of animals makes general use of the documented suitable habitat sites within this range on a year-round basis. During the winter months, there is a significant influx of additional animals into the area from other seasonal ranges.

Year-long: A population or substantial portion of a population of animals makes general use of the suitable documented habitat sites within the range on a year-round basis. On occasion, animals may leave the area under severe conditions.

Calving Areas (Parturition): Documented birthing areas commonly used by females. They include calving areas, fawning areas, and lambing grounds. These areas may be used as nurseries by some big game species.

Section 106 of National Historic Preservation Act:

“The head of any federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking in any state and the head of any federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such federal agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking” (16 U.S.C. 47 df).

Security Habitat:

The area to which wildlife retreat when disturbance in their usual range is intensified. Each species tends to be most comfortable or secure within habitat blocks larger than a minimum area. The Fortification Creek Resource Management Plan amendment defined elk security habitat as contiguous habitat of 250 acres or greater that is more than 0.5 mile or not visible from an open road.

Sensitive Sites or Resources:

Sensitive sites or resources refer to significant cultural resources that are or may be eligible for nomination to the National Register of Historic Places.

Sensitive Species:

Species designated as sensitive by the BLM State Director include species that are under status review, have small or declining populations, live in unique habitats, or require special management. BLM Manual 6840 provides policy and guidance for special status species management. The BLM Wyoming Sensitive Species Policy and List are provided in a memorandum updated annually. The primary goals of the BLM Wyoming policy include maintaining vulnerable species and habitat components in functional BLM ecosystems and preventing a need for species listing under the Endangered Species Act.

Seral Stage:

One of a series of plant communities that follows another in time on a specific ecological site.

Setting:

Setting is the physical environment of a historic property and how the property evokes a sense of feeling and association with past events. Accordingly, setting referees to the character of the place in which the property played its historic role. It involves how, not just where, the

property is situated and its relationship to surrounding features and open space. These features and their relationships should be considered not only within the exact boundaries of the property, but also between the property and its surroundings.

Significant Paleontological Resource (also Significant Fossil Resource):

Any paleontological resource that is considered to be of scientific interest, including most vertebrate fossil remains and traces, and certain rare or unusual invertebrate and plant fossils. A significant paleontological resource is considered to be scientifically important because it is a rare or previously unknown species, it is of high quality and well-preserved, it preserves a previously unknown anatomical or other characteristic, provides new information about the history of life on earth, or has identified educational or recreational value.

Silviculture:

The art of producing and tending a forest; the application of knowledge of silvics in the treatment of a forest; the theory and practice of controlling forest establishment, composition, structure, and growth.

Site:

A location, place. Is a term used by archeologists for places that prehistoric and historic people lived in or used. Sites are places where humans left things behind.

Soil Interpretations:

Soil survey interpretations predict soil behavior for specified soil uses and under specified soil management practices. (<http://www.nedc.nrcs.usda.gov/catalog/NASISoilInterpretations.html>)

Soil Mapping Unit-Map Units:

A map unit is a collection of areas defined and named the same in terms of their soil components or miscellaneous areas or both. Each map unit differs in some respect from all others in a survey area and is uniquely identified on a soil map. Each individual area on the map is a *delineation*. Map units consist of one or more components. An individual component of a map unit represents the collection of polypedons or parts of polypedons that are members of the taxon or a kind of miscellaneous area. (<http://soils.usda.gov/technical/manual/contents/chapter2.html#3>)

Special Recreation Management Areas (SRMA):

See *Recreation Management Areas*.

Special Recreation Permit (SRP):

An authorization that allows specified recreational uses of the public lands and related waters as required by 43 CFR 2932.11a(1). SRPs are issued as a means to manage visitor use and to protect natural and cultural resources and as a mechanism to authorize commercial, competitive, and vending use; organized group activities and events; and individual or group use of special areas. Commercial SRPs are also issued as a means to provide a fair return for the commercial recreational use of public lands.

Special Status Species:

Special status species are species proposed for listing, officially listed as Threatened, Endangered, proposed, or are candidates for listing as Threatened or Endangered under the provisions of the Endangered Species Act; those listed by a state in a category implying

potential endangerment or extinction; and those designated by the State Director as sensitive (BLM 2008d).

Species of Greatest Conservation Need (SGCN):

Low and declining populations that are indicative of the diversity and health of Wyoming's wildlife.

Split Estate:

Surface land and mineral estate of a given area under different ownerships. Frequently, the surface will be privately owned and the minerals federally owned.

Stabilization:

Minimize sheet and rill erosion on/or adjacent to the reclaimed area. There shall be no evidence of mass wasting, head cutting, large rills or gullies, down cutting in drainages, or overall slope instability on/or adjacent to the reclaimed area. Instruction Memorandum No. WY-2012-032.

Stakeholder:

Entities whose interests may be affected as a result of project execution or project completion.

State-listed Species:

Species proposed for listing or listed by a state in a category implying, but not limited to, potential endangerment or extinction. Listing is either by legislation or regulation.

Stratigraphy:

The science of studying layers of materials, as in rock layers in the Earth or deposits in archeological sites. Usually, the layer on the bottom is the oldest, and the layer on the top is the youngest. Cultural remains and soils/sediments become buried over time. Rocks, and soil or sediments comprising different layers are often different from one another, such as different colors, or containing different clasts (pieces of rock) and/or different fossils; however, different layers can also be very similar.

Subsoil:

Technically, the subsoil includes the B horizon. This is roughly the part of the solum below the organic topsoil and above the rocky parent material of the C horizon. When suitable, the subsoil may be salvaged to supplement the topsoil for plant establishment.

Surface-disturbing Activities (or Surface Disturbance):

An action that alters the vegetation, surface/near surface soil resources, and/or surface geologic features, beyond natural site conditions and on a scale that affects other Public Land values. Examples of surface-disturbing activities may include: operation of heavy equipment to construct well pads, roads, pits and reservoirs; installation of pipelines and powerlines; and the conduct of several types of vegetation treatments (e.g., prescribed fire, etc.). Surface-disturbing activities may be either authorized or prohibited.

Surface Water Classes and Uses:

The following water classes are a hierarchical categorization of waters according to existing and designated uses. Except for Class 1 waters, each classification is protected for its specified uses plus all the uses contained in each lower classification. Class 1 designations are based on value determinations rather than use support and are protected for all uses in existence at the time of or after designation. There are four major classes of surface water in Wyoming

with various subcategories within each class (see “Wyoming Surface Water Classification List” for current listing).

Class 1, Outstanding Waters: Class 1 waters are those surface waters in which no further water quality degradation by point source discharges other than from dams will be allowed. Nonpoint sources of pollution shall be controlled through implementation of appropriate best management practices. Pursuant to Section 7 of these regulations, the water quality and physical and biological integrity that existed on the water at the time of designation will be maintained and protected. In designating Class 1 waters, the Environmental Quality Council shall consider water quality, aesthetic, scenic, recreational, ecological, agricultural, botanical, zoological, municipal, industrial, historical, geological, cultural, archeological, fish and wildlife, the presence of substantial quantities of developable water, and other values of present and future benefit to the people.

Class 2, Fisheries and Drinking Water: Class 2 waters are waters, other than those designated as Class 1 that are known to support fish or drinking water supplies or where those uses are attainable. Class 2 waters may be perennial, intermittent, or ephemeral and are protected for the uses indicated in each subcategory listed below. Five subcategories of Class 2 waters exist.

Class 3, Aquatic Life Other than Fish: Class 3 waters are waters other than those designated as Class 1 that are intermittent, ephemeral, or isolated waters, and because of natural habitat conditions, do not support nor have the potential to support fish populations or spawning or certain perennial waters that lack the natural water quality to support fish (e.g., geothermal areas). Class 3 waters provide support for invertebrates, amphibians, or other flora and fauna that inhabit waters of the state at some stage of their life-cycles. Uses designated on Class 3 waters include aquatic life other than fish, recreation, wildlife, industry, agriculture, and scenic value. Generally, waters suitable for this classification have wetland characteristics; and such characteristics will be a primary indicator used in identifying Class 3 waters. There are four subcategories of Class 3 waters.

Class 4, Agriculture, Industry, Recreation, and Wildlife: Class 4 waters are waters other than those designated as Class 1 where it has been determined that aquatic life uses are not attainable pursuant to the provisions of Section 33 of these regulations. Uses designated on Class 4 waters include recreation, wildlife, industry, agriculture and scenic value (Wyoming DEQ 2002).

Threatened Species:

Any species that is likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.

Topsoil:

The biologically active, upper part of the soil profile, being the most favorable material for plant growth. The topsoil includes the O and A horizons.

Traditional Cultural Property:

A cultural property eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. "Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or

through practice. The traditional cultural significance of a historic property is derived from the role the property plays in a community's historically rooted beliefs, customs, and practices.

Undetermined Lek:

Any lek that has not been documented as being active in the last 10 years, but does not have sufficient documentation to be designated unoccupied. Management protection will be afforded to undetermined leks until their status has been documented as unoccupied.

Unoccupied Lek:

There are two types of unoccupied leks, "destroyed" and "abandoned." Unoccupied leks are not protected during surface-disturbing activities.

- Destroyed lek – A formerly active lek site and surrounding sagebrush habitat that has been destroyed and is no longer suitable for Greater Sage-Grouse breeding. A lek site that has been strip-mined, paved, converted to cropland or undergone other long-term habitat type conversion is considered destroyed. Destroyed leks are not monitored unless the site has been reclaimed to suitable Greater Sage-Grouse habitat.
- Abandoned lek – A lek in otherwise suitable habitat that has not been active during a period of 10 consecutive years. To be designated abandoned, a lek must be "inactive" (see above criteria) in at least four non-consecutive strutting seasons spanning the ten years. The site of an "abandoned" lek should be surveyed at least once every ten years to determine whether it has been re-occupied by Greater Sage-Grouse.

Uranium:

Pure uranium (elemental form) is a silvery white metal, and is weakly radioactive. It is malleable and ductile (can be bent and shaped), slightly paramagnetic (slightly attracted to a strong magnetic field), and is a poor electrical conductor. It is harder than most elements, but a little softer than steel. It has a very high density — about 70% denser than lead, and slightly less dense than gold. Uranium is the heaviest naturally-occurring element available in large quantities; it is more common in nature than was originally thought. Uranium metal oxidizes in air, becoming coated with a dark layer of uranium oxide. Uranium's reactivity increases with increasing temperature. Its numerous oxidation states allow for formation of a variety of compounds, including oxides, fluorides, chlorides, bromides, iodides, hydrides, carbonates, carbides, nitrides and phosphates. Uranium can exist in aqueous solutions as various ions, with oxidation state +6 (as the UO_2^{2+} ion, yellow in color) the most stable. Uranium and its' compounds are highly toxic, both from chemical and radiological standpoints.

Usable Water:

Water containing less than 10,000 parts per million total dissolved solids.

Valid Mining Claims, or Validity of Mining Claims:

See Mining Claims.

Vegetative Diversity:

The variety of vegetative types in an area, including species, the genetic differences among species and populations, the communities and ecosystems in which vegetation types occur, and the structure and seral stage of these communities. Vegetative diversity includes rare as well as common vegetative types, and typically supports a diverse array of animal species and communities.

Viewshed:

Viewshed is used in Visual Resource Management to describe "...landscape that can be seen under favorable atmospheric conditions from a viewpoint (key observation point) or along a transportation corridor" (BLM 1984).

Visual Resource Management (VRM) Classes:

The objectives of each VRM Class are as follows:

- **Class I:** To preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention. It is applied to wilderness and wilderness study areas, some natural areas, wild portions of Wild and Scenic Rivers, and other similar situations in which management activities are to be restricted.
- **Class II:** To retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Proposed alterations should be designed so as to retain the existing character of the landscape. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
- **Class III:** To partially retain the existing character of the landscape. Contrasts to the basic elements (form, line, color, and texture) caused by a management activity may be evident and begin to attract attention in the characteristic landscape; however, the changes should remain subordinate to the existing characteristic landscape. The level of change to the characteristic landscape should not exceed the moderate threshold.
- **Class IV:** To provide for management activities which require major modification of the existing character of the landscape. Contrasts may attract attention and be a dominant feature of the landscape in terms of scale; however, changes should repeat the basic elements (form, line, color, and texture) inherent in the characteristic landscape. The level of change to the characteristic landscape can be high.

Visual Resources:

The visible physical features of a landscape (topography, water, vegetation, animals, structures, and other features) that constitute the scenery of an area.

Watershed:

See *Basin*.

Wetlands:

Areas that are inundated or saturated by surface or groundwater often and long enough to support and under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. BLM Manual 1737, Riparian-Wetland Area Management (BLM 1992a), includes marshes, shallow swamps, lakeshores, bogs, muskegs, wet meadows, estuaries, and riparian areas as wetlands.

Wild and Scenic River:

A river or portion of a river that is part of a national system of congressionally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural and other similar values and are preserved in a free-flowing condition. The system consists of three types of streams:

1. Recreation – rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversions in the past;
2. Scenic – rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped but accessible in places by roads; and
3. Wild – rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with watersheds or shorelines essentially primitive and waters unpolluted.

Wilderness (area):

A unit designated by Congress for inclusion in the National Wilderness Preservation System.

Wilderness characteristics:

Wilderness characteristics are discussed in Section 2(c) of the Wilderness Act of 1964, and incorporated in Federal Land Policy Management Act, which states: “A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected by the forces of nature, with the imprint of man’s work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.”

Wilderness Study Area:

An area inventoried, found to have wilderness characteristics, and managed to preserve those characteristics under authority of the review of public lands required by Section 603 of the Federal Land Policy and Management Act of 1976. During the period of review or “study,” Wilderness Study Areas are managed so as not to impair the suitability of such areas for preservation as wilderness.

Wildfire:

Unplanned ignition of a wildland fire, (such as a fire caused by lightning, volcano, unauthorized and accidental human caused fires), and escaped prescribed fires.

Wildland Fire:

A general term describing any non-structure fire that occurs in the wildland.

Wildland Industrial Interface:

The area where industrial development meets or intermingles with undeveloped wildland.

Wildland Urban Interface:

Healthy Forest Restoration Act 2003: defines wildland urban interface (section 101) as an area within or adjacent to an at risk community that has been identified by a community in its wildfire protection plan or, for areas that do not have such a plan, an area extending (1) 0.5 mile from the boundary of an at risk community; (2) 1.5 miles when other criteria are met

(e.g., a sustained steep slope or a geographic feature aiding in creating an effective fire break or is condition class III land; or (3) is adjacent to an evacuation route.

Wildlife-Disturbing Activity:

BLM-authorized activities other than routine maintenance that may cause displacement of or excessive stress to wildlife during critical life stages. Wildlife-disturbing activities include human presence, noise, and activities using motorized vehicles or equipment.

Wildlife Habitat Management Area:

Special management areas that are designed to protect or preserve habitat for wildlife. The environment in these areas is unique in some respects, and it is therefore desirable to apply different management prescriptions to these areas from those of the surrounding public lands. The integration of different land management goals, objectives, and actions will be implemented to ensure that the integrity of these areas will be maintained. (Record of Decision and Approved Rawlins Resource Management Plan, G-21, BLM)

Wildlife Monitoring and Protection Plan:

A plan that is developed with a goal of avoiding or minimizing impacts to wildlife by monitoring wildlife population trends and by developing appropriate mitigation actions. A Wildlife Monitoring and Protection Plan is often produced in conjunction with an Environmental Impact Statement. These plans are intended to help the BLM identify problems, design project plans, monitor decisions and make recommendations to adjust management actions as they relate to wildlife protection.

Withdrawal:

Removal or withholding of public lands, by statute or Secretarial order, from operation of some or all of the public land laws. A mineral withdrawal is the closing of an area to locatable mineral location and development activities.

Woodland:

Forest lands which are not included in the commercial forest land allowable cut base. These lands include both commercial and noncommercial forest lands. Also included are those lands formerly defined as noncommercial forest lands and those that cannot be reforested within 15 years (now Category I and II lands).

Yellowcake:

The solid form of mixed uranium oxides, produced from the milling (refining) of uranium ore. The proportion of the various uranium oxides, and impurities, present leads to color variations from bright yellow to orange to dark green or black. The higher the temperature at which the material is dried (lower level of hydration), and the greater the impurities, the darker the dried product. Higher drying temperatures also produce a less soluble material. Yellowcake produced by many modern mills is often brown or black, rather than yellow; the name is still used, and came from the color and texture of the material produced in early mills. Yellowcake is commonly referred to as U_3O_8 and is assayed as pounds U_3O_8 equivalent; often, it's comprised of approximately 85% U_3O_8 . This fine powder is packaged in drums at the mill, and then transported to a uranium conversion facility(ies). These facilities transform it into uranium hexafluoride, in preparation for fabricating nuclear reactor fuel. There are other uses for uranium, such as in medicine, science, biology, etc., and these may require a different conversion process, or another conversion process after the uranium hexafluoride is prepared.